

REMARKS

Claims 1-34 are currently pending in the subject application and are presently under consideration. Claims 1-5, 7-9, 14, 17-19, 21-23, and 32-33 have been amended as shown on pp. 2-7 of the Reply. New claim 35 has been added.

Applicants' representative thanks Examiner Serrao for the courtesies extended during the telephonic conference held on September 24, 2008, with Keith Drabek. No agreement was reached as to any particular form of amendment.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Objection to Claims 2-5, 7-9, 14, 17-18, and 22-23.

Claims 2-5, 7-9, 14, 17-18, and 22-23 stand objected to due to informalities. Withdrawal of this rejection is respectfully requested in light of the amendments to claims 2-5, 7-9, 14, 17-18, and 22-23 made herein.

II. Rejection of Claims 32-33 Under 35 U.S.C § 112

Claims 32-33 stand rejected under 35 U.S.C § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicants' regard as the invention. Withdrawal of this rejection is respectfully requested in light of the amendments to claims 32 and 33 made herein.

III. Rejection of Claim 33 Under 35 U.S.C. § 101

Claim 33 stands rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Withdrawal of this rejection is respectfully requested in light of the amendments to claim 33 made herein.

IV. Rejection of Claims 1-19 and 21-23 Under 35 U.S.C. § 102(e)

Claims 1-19 and 21-23 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Arora *et al.* (U.S. Patent Publication No. 2004/0064568). This rejection should be withdrawn for at least the following reason: Arora *et al.* does not disclose or suggest each and every feature recited in the subject claims. The claimed subject matter is directed to systems and

methods that provide Web-based asynchronous processing of synchronous requests. Conventional systems typically require a client application to correlate asynchronous results and do not utilize Web-based asynchronous processing services. The claimed subject matter provides for an improvement over such conventional systems by utilizing client-based correlation schemes and enabling seamless Web-based asynchronous processing. For example, a synchronous web request transmitted by a client can be efficiently and transparently processed utilizing an asynchronous technique. In one example, the synchronous request can be farmed out, or scaled, across Web processing engines in order to leverage the advantages associated with asynchronous processing. (See applicants' specification at paragraphs 9-10 and 27). To this end, independent claim 1, as amended, recites ***a Web-based system that asynchronously processes synchronous requests, comprising: an interface component that receives a synchronous request; and a processing component that parses the synchronous request across a plurality of Web services for asynchronous processing, wherein the processing component aggregates asynchronous results from the plurality of Web services and returns a synchronous result.***

Arora *et al.* is directed to a distributed index mechanism for indexing and searching for content in peer-to-peer networks. To this end, Arora *et al.* discloses peers with sufficient storage capacity may be able to participate in a distributed index. The content can include text documents, and search queries may include one or more terms from the text documents. In one example, the distributed index can be a distributed hash table, with participating peers responsible for a range of values of hashes that may be generated by a hash function. (See Arora *et al.* at paragraph 64). Although Arora *et al.* further discloses the peer-to-peer networks can be designed to interoperate with and be compatible with various Web service standards (see Arora *et al.* at paragraph 279), applicants' representative respectfully submits that, contrary to assertions made in the office action, the cited section fails to disclose or suggest ***a Web-based system that asynchronously processes synchronous requests.*** Instead, the cited aspects of Arora *et al.* disclose a non-Web-based peer-to-peer system that can interface (*i.e.*, interoperate) with Web-based systems utilizing various Web service standards.

Moreover, although Arora *et al.* discloses a user may asynchronously and simultaneously issue many requests for resources of a peer-to-peer network while the peer-to-peer network can support synchronous applications (see Arora *et al.* at paragraphs 71-79, 144-146), applicants' representative respectfully submits that, contrary to assertions made in the office action, the cited

sections fail to disclose or suggest an *interface component* of a Web-based system *that receives a synchronous request*; and *a processing component that parses the synchronous request across a plurality of Web services for asynchronous processing*, wherein *the processing component aggregates asynchronous results from the plurality of Web services and returns a synchronous result*.

Dependent claim 2 recites *the processing component parses the synchronous request based on a load balancing technique that distributes portions of the synchronous request to one or more of the plurality of Web services so that request processing is spread across respective Web services based on Web service load*. Although Arora *et al.* discloses message routing in a peer-to-peer network may provide load balancing (*see* Arora *et al.* at paragraph 680), and further discloses distributed indexes can spread the load of storing identity information across multiple peer nodes (*see* Arora *et al.* at paragraph 84), applicants' representative respectfully submits that, contrary to assertions made in the office action, Arora *et al.* fails to disclose or suggest parsing *a load balancing technique that distributes portions of the synchronous request to one or more of the plurality of Web services so that request processing is spread across respective Web services based on Web service load* – no portions of a synchronous request is spread across respective Web services based on Web service load.

Dependent claim 11 recites *an error-handling component that transmits a message indicating processing of the request has been halted due to a time period lapse*. Although Arora *et al.* discloses an advertisement can may include a time-to-live indicator indicating a length of time during which a source advertisement is valid (*see* Arora *et al.* at paragraph 351), applicants' representative respectfully submits that, contrary to assertions made in the office action, the cited section fail to disclose or suggest transmitting a message indicating the time-to-live has lapsed.

Independent claim 15 recites a *processing engine that posts synchronous requests in a message box that is accessed by one or more subscribed Web-based services that asynchronously process the synchronous requests*; an *aggregating component that correlates asynchronous results with the synchronous request and groups the correlated results*; and an *output component that returns the grouped results as a synchronous result*. Although Arora *et al.* discloses routing queries and providing pipes as primary channels for communication among peers, and further discloses pipes may be asynchronous (*see* Arora *et al.*

at paragraphs 210-214 and 74-79), applicants' representative respectfully submits that, contrary to assertions made in the office action, the cited sections fail to disclose or suggest the novel features recited in claim 15.

Dependent claim 16 recites *an adapter that accepts a synchronous request from a client and conveys the synchronous request to the processing engine*. Although Arora *et al.* discloses a peer-to-peer platform that can replicate information toward end users (*see* Arora *et al.* at paragraph 146), applicants' representative respectfully submits that, contrary to assertions made in the office action, the cited section fails to disclose or suggest the novel features recited in claim 16.

In view of at least the foregoing, it is readily apparent that Arora *et al.* does not disclose or suggest each and every features of the claimed subject matter as recited in independent claims 1 and 15 (and associated dependent claims). Accordingly, withdrawal of this rejection is respectfully requested.

V. Rejection of Claims 24-34 Under 35 U.S.C. § 102(e)

Claims 24-34 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Tripp *et al.* (U.S. Patent No. 6,516,337). This rejection should be withdrawn for at least the following reason: Tripp *et al.* does not disclose or suggest each and every feature recited in the subject claims. Independent claim 24 recites *accepting a synchronous request; dynamically delineating the synchronous request across process engines based on process engine load; correlating asynchronous results and errors; and returning the correlated results as a synchronous result*. Tripp *et al.* is directed to utilizing a bottom-up approach to index or catalog objects on a network. (*See* Tripp *et al.* at col. 5, lines 9-12). Although Tripp *et al.* discloses directing packets comprising search requests and update transactions through a load balancing switch, and all data and program updates are sent between a site host and central server in compressed and encrypted format (*see* Tripp *et al.* at col. 9, lines 11-29; col. 17, lines 47-64), applicants' representative respectfully submits that, contrary to assertions made in the office action, the cited sections fail to disclose or suggest the novel features recited in claim 24.

Dependent claim 25 recites *publishing the synchronous request in a message queue*. Although Tripp *et al.* discloses construction of meta indexes generated as lists of URLs from many different servers (*see* Tripp *et al.* at col. 26, lines 57-59), applicants' representative

respectfully submits that, contrary to assertions made in the office action, Tripp *et al.* fails to disclose or suggest the novel features recited in claim 25 – no synchronous request is published in a message queue.

Dependent claim 26 recites *subscribing process engines with the message queue*. Although Tripp *et al.* discloses automatically sending emails to encourage a host to install an agent (*see* Tripp *et al.* at col. 16, lines 11-12), applicants' representative respectfully submits that, contrary to assertions made in the office action, Tripp *et al.* fails to disclose or suggest the novel features recited in claim 26 – process engines are subscribed in a message queue.

Independent claim 28 recites *transmitting a synchronous request; distributing the synchronous request across servers within a server farm; aggregating asynchronous results with an associated synchronous request; and returning the aggregated results as a synchronous result*. Although Tripp *et al.* discloses directing packets comprising search requests and update transactions through a load balancing switch (*see* Tripp *et al.* at col. 9, lines 11-29), applicants' representative respectfully submits that, contrary to assertions made in the office action, the cited sections fail to disclose or suggest the novel features recited in claim 28.

Independent claim 32, as amended, recites *receiving a synchronous request from a client; posting the synchronous request in a queue; parsing the queued synchronous request across servers within a farm of servers based on a dynamic balancing technique; correlating asynchronous results with the synchronous request; and returning the asynchronous results to the client as a synchronous result*. Although Tripp *et al.* discloses search index servers query their respective local index segments, generate search data, and return search results to a web server (*see* Tripp *et al.* at col. 24, lines 27-45), applicants' representative respectfully submits that, contrary to assertions made in the office action, Tripp *et al.* fails to disclose or suggest the novel features recited in claim 32.

Independent claim 33, as amended, recites a *first component that dynamically distributes a synchronous request via a Web service that utilizes load-based asynchronous processing*, wherein *the synchronous request is distributed across processing engines based on load*; a *second component that dynamically re-distributes the synchronous request as processing engine load changes*; a *third component that correlates asynchronous results with the synchronous request*; and a *fourth component that returns the asynchronous results as a synchronous result*. Although Tripp *et al.* discloses search index servers query their respective

local index segments, generate search data, and return search results to a web server (*see* Tripp *et al.* at col. 24, lines 27-45), applicants' representative respectfully submits that, contrary to assertions made in the office action, Tripp *et al.* fails to disclose or suggest the novel features recited in claim 33.

Independent claim 34 recites *means for receiving a synchronous request; means for posting the synchronous request; means for dynamically distributing the synchronous request across processing engines based at least on process engine load; means for correlating asynchronous results with the synchronous request; and means for returning the asynchronous results as a synchronous result.* Although Tripp *et al.* discloses search index servers query their respective local index segments, generate search data, and return search results to a web server (*see* Tripp *et al.* at col. 24, lines 27-45), applicants' representative respectfully submits that, contrary to assertions made in the office action, Tripp *et al.* fails to disclose or suggest the novel features recited in claim 34.

In view of at least the foregoing, it is readily apparent that Tripp *et al.* does not disclose or suggest each and every features of the claimed subject matter as recited in independent claims 24, 28, and 32-34 (and associated dependent claims). Accordingly, withdrawal of this rejection is respectfully requested.

VI. Rejection of Claim 20 Under 35 U.S.C. § 103(a)

Claim 20 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Arora *et al.* in view of Tripp *et al.* This rejection should be withdrawn for at least the following reason: Arora *et al.* and Tripp *et al.*, alone or in combination, do not teach or suggest each and every feature recited in the subject claim. Dependent claim 20 recites *an error-handling component that provides a notification when the request cannot be serviced.* Applicants' representative respectfully submits that Arora *et al.* and Tripp *et al.* are silent regarding the novel features recited in claim 20. Further, claim 20 properly depends from claim 15, and is patentable over the cited art for at least the same reasons as is claim 15. Accordingly, withdrawal of this rejection is respectfully requested.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP505US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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